

## **REMARKS**

Claims 1, 3-5, 7-11, 13-21, 30, 33, and 38-56 have been amended. Claims 2 and 12 have been canceled. Claims 57 and 58 have been added. Therefore, claims 1, 3-11, and 13-58 are pending in the application. Reconsideration is respectfully requested in light of the following remarks.

### **Clarity of the Rejections**

In regard to various ones of the § 102 and § 103 rejections, Applicants note the Examiner has cited broad portions of the cited references without specifying the particular elements of the art on which the Examiner is relying to teach the elements of Applicants' claims. For example, for the limitations of Applicants' claim 21, the Examiner simply lists quotations from two paragraphs of the cited references. However, the Examiner's broad reference to various paragraphs of the cited art does not make it unambiguously clear as to the specific elements of the cited references that he considers to be equivalent to each of the specific elements of Applicants' claims. **Applicants note that per MPEP 707.07(d), the ground of rejection in an Examiner's Action should be "fully and clearly stated." Furthermore, 37 CFR 1.104(c)(2) states that "[w]hen a reference is complex or shows or describes inventions other than that claimed by the applicant, the particular part relied on must be designated as nearly as practicable."** Since the current rejection does not unambiguously specify the particular elements of the cited references that the Examiner considers to be equivalent to the particular elements of Applicants' claims, Applicants assert that the Examiner's rejection is not "fully and clearly stated" nor has the Examiner designated the particular part(s) relied on "as nearly as practicable." Accordingly, with respect to all of Applicants pending claims, Applicants request that the Examiner specify the specific elements of the cited references that the Examiner considers to teach the specific elements of Applicants' claims (e.g., the claimed *transaction*, *transaction manager*, *transaction freeze manager*, *stored transaction freeze object*, etc.). Applicants simply cannot ascertain the basis for the Examiner's rejection in regard to the specific limitations of the claims.

### **Objection to the Specification**

The Examiner objected to the abstract for exceeding 150 words by two words. Applicants assert the amended abstract presented above does not exceed 150 words. Accordingly, Applicants respectfully request removal of the objection to the specification.

### **Objection to the Claims**

The Examiner objected to claims 21, 30, 39 and 48 for having minor punctual informalities. Such informalities are not present within the amended version of the aforesaid claims. Accordingly, Applicants respectfully request removal of the objection.

The Examiner objected to claims 30 and 48 under 37 CFR 1.83 for allegedly not illustrating the features “resuming the transaction manager in response [to] the resume request by granting read locks on the transaction freeze object.” First, Applicants note that it appears improper to object to the claims under 37 CFR 1.83, as that section pertains to “Content of drawing.” Applicants assume the Examiner meant to object to the drawings for alleged noncompliance with 37 CFR 1.83. Irrespective of the appropriateness of the Examiner’s objection, Figure 8 has been amended as illustrated on the replacement sheet submitted herewith. More specifically, block 850 has been amended to include “(e.g., resume a transaction manager in response to a resume request by granting read locks on a transaction freeze object).” Applicants assert the present application is in compliance with 37 CFR 1.83. Accordingly, Applicants respectfully request the removal of the objection to claims 30 and 48.

### **Objection to the Drawings**

The Examiner objected to the drawings for alleged noncompliance with 37 CFR 1.84. The Examiner asserts that “the reference numerals are enclosed within an outline.”

The Examiner is incorrect. Applicant's respectfully note that 37 CFR 1.84 explicitly permits the placement of underlined reference characters on the surfaces of the drawings. For example, 37 CFR 1.84(q) states:

Lead lines are required for each reference character except for those which indicate the surface or cross section on which they are placed. Such a reference character must be underlined to make it clear that a lead line has not been left out by mistake. (emphasis added)

Since the reference characters of the drawings comply with 37 CFR 1.84(q), Applicants assert the objection is improper and removal thereof is respectfully requested.

Applicants further note that it appears the Examiner has interpreted any reference character residing within a polygon to be "enclosed within an outline" (*see e.g.*, 37 CFR 1.84(p)). Applicants note that such a strained interpretation is inconsistent with 37 CFR 1.84(q), which explicitly permits underlined reference characters to be placed on surfaces (which is exactly the case with the drawings of the present application). Since the Examiner's interpretation of 37 CFR 1.84 clearly conflicts with that of 37 CFR 1.84(q), Applicant's assert the Examiner's objection is improper.

For an example of an issued patent containing underlined reference characters placed on surfaces in the drawings, Applicants respectfully direct the Examiner to U.S. Patent 7,279,922 (*see e.g.*, multiplier 150 of Figure 1, sample control 320 of Figure 3, etc.).

#### **Provisional Double Patenting Rejection:**

The Examiner provisionally rejected claims 1, 10, 11, 20, 21, 30, 39 and 48 under the judiciary created doctrine of obviousness-type double patenting as allegedly being unpatentable over claims 1-36 of co-pending Application No. 10/618,828. Since this rejection is a provisional rejection, Applicants will consider filing a terminal disclaimer to obviate the alleged double patenting rejection or present arguments to overcome the rejection if and when the rejection becomes non-provisional. Applicants also note that the aforesaid rejection should be reconsidered in light of the amendments presented

above and any recent amendments to the co-pending application.

### **Section 101 Rejection:**

The Examiner rejected claims 21-56 under 35 U.S.C. § 101 for allegedly being directed towards non-statutory subject matter.

In regard to claim 21, Applicants traverse the rejection. However, to expedite prosecution, Applicants have amended claim 21 to include "...using one or more computers to perform..." the actions recited in the claim. Similar remarks apply to claim 30. Accordingly, Applicants respectfully request removal of the § 101 rejection of claims 21, 30 and claims dependent thereon.

In regard to claim 39, Applicants note that claim 39 has been amended to recite "...computer readable storage medium..." Similar remarks apply to claims 40-56. Accordingly, Applicants respectfully request removal of the § 101 rejection of claims 39-56.

### **Section 102 Rejections:**

The Examiner rejected claims 1, 10, 11 and 20 under 35 U.S.C. § 102(b) as being anticipated by Hagersten et al. (U.S. Patent 5,983,326) (hereinafter "Hagersten"), claims 39-41, 43, 45 and 47 under 35 U.S.C. § 102(b) as being anticipated over Ault et al. (U.S. Patent 6,237,019) (hereinafter "Ault"), and claims 21-25, 27 and 29 under 35 U.S.C. § 102(e) as being anticipated by Oeltjen et al. (U.S. Publication 2004/0225972) (hereinafter "Oeltjen"). Applicants respectfully traverse these rejections for at least the following reasons.

#### **Claim 1**

**In regard to claim 1, the cited art fails to teach a transaction freeze manager**

configured to (i) pause the transaction manager in response to a pause request by withholding said permission to change the state of the given atomic transaction, and (ii) resume the transaction manager in response to a resume request by granting said permission to change the state of the given atomic transaction. The Examiner acknowledges that Hagersten fails to teach this limitation of Applicants claim (*see e.g.*, Office Action mailed November 12, 2008; rejection of claim 2). Accordingly, Hagersten does not teach all of the limitations of Applicants claim and thus cannot be said to anticipate claim 1. Moreover, in the rejection of claim 2, the Examiner relies on the teachings of Fowler in combination with Hagersten's "blocking unit" and/or "spin lock" to teach the aforesaid limitations. The Examiner also cites column 5, lines 40-53 of Fowler, which describes a "control section 80" that "provides user with toggle switches to configure the pause/resume synchronization of the multiprocessor system," and column 8, lines 52-56, which describes "a generated resume output request signal for concurrently providing a resumption control signal to each of the other processors concurrently to effect a resumption of program execution thereby." **While the cited art generally refers to "pausing" and "resuming" processor operations, the cited art clearly fails to teach pausing or resuming a transaction manager, much less pausing or resuming a transaction manager in the specific manner recited by Applicants' claim.** For instance, the cited art clearly fails to teach "a transaction freeze manager configured to pause the transaction manager in response to a pause request *by withholding said permission to change the state of the given atomic transaction*" as recited in Applicants' claim. Fowler's "control system 80" and/or its "toggle switches" are not configured to withhold a permission to change the state of a given atomic transaction, much less pause a transaction manager in this manner. The cited art also fails to teach a transaction freeze manager configured to resume the transaction manager in response to a resume request "*by granting said permission to change the state of the given atomic transaction*" as recited in Applicants' claim. The "resume output request signal" (Fowler; column 8, lines 52-56; cited by Examiner) is not configured to grant permission to change the state of a given atomic transaction, much less resume a transaction manager in this manner.

Furthermore, the cited art fails to teach or suggest a transaction manager configured to control state changes of the one or more atomic transactions initiated by the one or more applications; wherein for each given atomic transaction, the transaction manager is configured to request permission to change the state of the given atomic transaction. It appears the Examiner is relying on the “home agent” and/or the “transaction blocking unit” of Hagersten to teach the claimed transaction manager and the “transfer of data from a source to a destination” (Hagersten; column 8, lines 20-24) to teach the transactions of Applicants’ claim. (*see e.g.*, Office Action mailed November 12, 2008; pages 6-7). **First**, the cited art does not teach that the “transfer of data from a source to a destination” is actually an atomic transaction. The only atomic operations described by Hagersten are atomic test-and-set operations (Hagersten; column 2, line 57 – column 3, line 4) that “allow[] [a] process to determine whether a lock bit associated with the memory region is cleared and to atomically set the bit.” According to Hagersten, the state of such “test-and-set operations” are controlled *by the individual processes*, not the “home agent” (nor the “transaction blocking unit”). Furthermore, such “test-and-set operations” occur *before* the “transfer of data from a source to a destination” described in column 8, lines 20-24. **Secondly**, the cited art does not teach or suggest that the “home agent” or the “transaction blocking unit” control state changes associated with the “transfer of data from a source to a destination.” In fact as described above, the only atomic operations disclosed by the cited art are atomic “test-and-set operations,” which are controlled by individual processes not the “home agent” nor the “transaction blocking unit.” The cited art fails to explicitly teach state changes of the “transfer of data from a source to a destination,” much less that the “home agent” or “transaction blocking unit” are configured to control such state changes. **Thirdly**, the cited art fails to teach a transaction manager configured to *request permission* to change the state of a given atomic transaction. The “request” on which the Examiner relies (*see e.g.*, receive request 162 of Figure 7) is not issued by the “home agent” nor is such request issued by the “transaction block unit” (on which the Examiner relies to teach the transaction manager). Instead, the “request” on which the Examiner relies is actually a coherency request received by the home agent, not a request issued by the home agent (nor a request issued by the transaction blocking unit) (*see e.g.*, Hagersten, column 21,

lines 26-27). Fowler, even when considered in combination with Hagersten, fails to overcome the above-described deficiencies.

For at least the reasons presented above, the rejection of claim 1 is unsupported by the cited art and removal thereof is respectfully requested.

#### **Claim 10**

**In regard to claim 10, the cited art fails to teach one or more transaction freeze managers configured to (i) pause the transaction manager in response to a pause request by withholding said permission to change the state of the given atomic transaction, and (ii) resume the transaction manager in response to a resume request by granting said permission to change the state of the given atomic transaction.** The Examiner acknowledges that Hagersten fails to teach this limitation of Applicants claim (*see e.g.*, Office Action mailed November 12, 2008; rejection of claim 2). Accordingly, Hagersten does not teach all of the limitations of Applicants claim and thus cannot be said to anticipate claim 1. Moreover, in the rejection of claim 2, the Examiner relies on the teachings of Fowler in combination with Hagersten's "blocking unit" and/or "spin lock" to teach the aforesaid limitations. The Examiner also cites column 5, lines 40-53 of Fowler, which describes a "control section 80" that "provides user with toggle switches to configure the pause/resume synchronization of the multiprocessor system," and column 8, lines 52-56, which describes "a generated resume output request signal for concurrently providing a resumption control signal to each of the other processors concurrently to effect a resumption of program execution thereby." **While the cited art generally refers to "pausing" and "resuming" processor operations, the cited art clearly fails to teach pausing or resuming a transaction manager, much less pausing or resuming a transaction manager in the specific manner recited by Applicants' claim.** For instance, the cited art clearly fails to teach "a transaction freeze manager configured to pause the transaction manager in response to a pause request by withholding said permission to change the state of the given atomic transaction" as recited in Applicants' claim. Fowler's "control system 80" and/or its

“toggle switches” are not configured to withhold a permission to change the state of a given atomic transaction, much less pause a transaction manager in this manner. The cited art also fails to teach a transaction freeze manager configured to resume the transaction manager in response to a resume request *“by granting said permission to change the state of the given atomic transaction”* as recited in Applicants’ claim. The “resume output request signal” (Fowler; column 8, lines 52-56; cited by Examiner) is not configured to grant permission to change the state of a given atomic transaction, much less resume a transaction manager in this manner.

**Furthermore, the cited art fails to teach or suggest one or more transaction managers configured to control state changes of the one or more atomic transactions initiated by the one or more applications, wherein for each given atomic transaction, the one or more transaction managers are configured to request permission to change the state of the given atomic transaction.** It appears the Examiner is relying on the “home agent” and/or the “request agent” of Hagersten to teach the claimed transaction manager and the “operation[s] performed in response to a read to own request from a processor” (Hagersten; column 6, lines 30-33) to teach the transactions of Applicants’ claim. (*see e.g.*, Office Action mailed November 12, 2008; pages 7-8). More specifically, the cited art does not explicitly teach that the “operation[s] performed in response to a read to own request from a processor” actually include an atomic transaction. The only atomic operations described by Hagersten are atomic test-and-set operations (Hagersten; column 2, line 57 – column 3, line 4) that “allow[] [a] process to determine whether a lock bit associated with the memory region is cleared and to atomically set the bit.” According to Hagersten, the state of such “test-and-set operations” are controlled *by the individual processes*, not the “home agent” (nor the “request agent”). Fowler, even when considered in combination with Hagersten, fails to overcome the above-described deficiencies.

For at least the reasons presented above, the rejection of claim 10 is unsupported by the cited art and removal thereof is respectfully requested.



### **Claim 11**

**In regard to claim 11, the cited art fails to teach the limitations of claim 11 for at least reasons similar to those presented above with respect to claim 10.**

**Furthermore, the cited art fails to teach or suggest anything about a transaction freeze object, much less read locks on transaction freeze objects.** Nor does the Examiner specifically cite any portion of the reference that he considers to be equivalent to the freeze object. Accordingly, the cited art fails to teach the specific limitations of Applicant's claim.

For at least the reasons presented above, the rejection of claim 11 is unsupported by the cited art and removal thereof is respectfully requested.

### **Claim 20**

**In regard to claim 20, the cited art fails to teach one or more transaction freeze managers configured to pause the transaction manager in response to a pause request by withholding said read lock for said transaction freeze object, and resume the transaction manager in response to a resume request by granting said read lock for said transaction freeze object.** The Examiner acknowledges that Hagersten fails to teach this limitation of Applicants claim (*see e.g.*, Office Action mailed November 12, 2008; rejection of claim 2). Accordingly, Hagersten does not teach all of the limitations of Applicants claim and thus cannot be said to anticipate claim 1. Moreover, in the rejection of claim 2, the Examiner relies on the teachings of Fowler in combination with Hagersten's "blocking unit" and/or "spin lock" to teach the aforesaid limitations. The Examiner also cites column 5, lines 40-53 of Fowler, which describes a "control section 80" that "provides user with toggle switches to configure the pause/resume synchronization of the multiprocessor system," and column 8, lines 52-56, which describes "a generated resume output request signal for concurrently providing a resumption control signal to each of the other processors concurrently to effect a

resumption of program execution thereby.” While the cited art generally refers to “pausing” and “resuming” processor operations, the cited art clearly fails to teach **pausing or resuming a transaction manager, much less pausing or resuming a transaction manager in the specific manner recited by Applicants’ claim.** For instance, the cited art clearly fails to teach “one or more transaction freeze managers configured to pause the transaction manager in response to a pause request *by withholding said read lock for said transaction freeze object*” as recited in Applicants’ claim. Fowler’s “control system 80” and/or its “toggle switches” are not configured to withhold a read lock for a transaction freeze object, much less pause a transaction manager in this manner. The cited art also fails to teach one or more transaction freeze managers configured to resume the transaction manager in response to a resume request “*granting said read lock for said transaction freeze object*” as recited in Applicants’ claim. The “resume output request signal” (Fowler; column 8, lines 52-56; cited by Examiner) is not configured to grant a read lock for a transaction freeze object, much less resume a transaction manager in this manner.

**Furthermore, the cited art fails to teach or suggest one or more transaction managers configured to control state changes of the one or more atomic transactions initiated by the one or more applications, wherein for each given atomic transaction, the one or more transaction managers are configured to request a read lock on a transaction freeze object to change the state of the given atomic transaction.** It appears the Examiner is relying on the “read to share” requests of Hagersten (Figures 9 and 10) to teach the transactions of Applicants’ claim. (*see e.g.*, Office Action mailed November 12, 2008; page 9). More specifically, the cited art does not explicitly teach that the “read to share” requests actually include an atomic transaction. The only atomic operations described by Hagersten are atomic test-and-set operations (Hagersten; column 2, line 57 – column 3, line 4) that “allow[] [a] process to determine whether a lock bit associated with the memory region is cleared and to atomically set the bit.” According to Hagersten, the state of such “test-and-set operations” are controlled *by the individual processes*, not the “directory cache management unit” (on which the Examiner presumably relies to teach the claimed one or more transaction managers, *see e.g.*, Office

Action mailed November 12, 2008; page 9, 10th line from bottom). Fowler, even when considered in combination with Hagersten, fails to overcome the above-described deficiencies.

**Furthermore, the cited art fails to teach or suggest anything about a transaction freeze object, much less read locks on transaction freeze objects.** Nor does the Examiner specifically cite any portion of the reference that he considers to be equivalent to the freeze object. Accordingly, the cited art fails to teach the specific limitations of Applicant's claim.

For at least the reasons presented above, the rejection of claim 20 is unsupported by the cited art and removal thereof is respectfully requested.

#### **Claim 21**

**In regard to claim 21, the Oeltjen fails to teach receiving a pause request, and pausing a transaction manager in response to the pause request by withholding permission to change the state of one or more transactions managed by the transaction manager.** The Examiner cites paragraphs 9 and 38 of Oeltjen. Oeltjen describes an automated framework and methodology for the development, testing, validation, and documentation of the design of semiconductor products that culminates in the release of a design kit having a flow manager and flow file to actualize a methodology to design a semiconductor product (Abstract). The Examiner equates the "errors result[ing] from tools failing" of paragraph 9 of Oeltjen to the "pausing a transaction manager in response to the pause request by withholding permission to change the state of one or more transactions managed by the transaction manager" limitation of Applicants' claim. The Examiner asserts that "such an error necessarily blocks a pause or restart." **First**, irrespective of the correctness of the Examiner's assertion, the cited art has nothing to do with pausing a transaction manager, much less pausing a transaction manager "by withholding permission to change the state of one or more transactions managed by the transaction manager." **Second**, the "pausing a

transaction manager” limitation of Applicants’ claim is performed “in response to the pause request.” Under the Examiner’s interpretation of the reference, Oeltjen would have to teach that the “error” was performed in response to a request for an error. Clearly, the “error[s]” taught by Oeltjen are unwanted errors (hence the term “error”); nowhere does the reference teach requesting such errors, much less performing errors in response to requests for errors. Such a strained interpretation of the reference is clearly improper.

**Furthermore, the cited art fails to teach or suggest receiving a plurality of resume requests, and resuming the transaction manager in response to the resume request by granting permission to change the state of the one or more transactions managed by the transaction manager.** The Examiner cites paragraph 38, in particular the portion of that describes “commands that permit stepping through and editing code.” Stepping through and editing code has nothing to do with resuming a transaction manager, much less resuming a transaction manager “by granting permission to change the state of the one or more transactions managed by the transaction manager” as recited in Applicants claim. Even a cursory review of Oeltjen would lead one of ordinary skill in the art to conclude that the limitations of Applicants’ claim are not disclosed by the reference. Since Oeltjen fails to teach all of the limitations of Applicants’ claim, Oeltjen cannot be said to anticipate Applicants’ claim.

For at least the reasons presented above, the rejection of claim 21 is unsupported by the cited art and removal thereof is respectfully requested.

### **Claim 39**

**In regard to claim 39, Ault fails to teach program instruction configured to receive a pause request, and pause a transaction manager in response to the pause request by withholding permission to change the state of one or more transactions managed by the transaction manager.** The Examiner equates the suspension of a calling thread (column 2, lines 48-62) of Ault to be equivalent to the limitation “paus[ing] a transaction manager in response to the pause request *by withholding permission to*

*change the state of one or more transactions managed by the transaction manager” as recited in Applicants claim. **First**, suspending a thread as taught by Ault is not the same as “withholding permission to change the state of one or more transactions managed by the transaction manager” as recited in Applicants claim. Nor does suspending a thread inherently include “withholding permission to change the state of one or more transactions managed by the transaction manager.” In fact, the Examiner fails to cite any portion of the reference that he considers to be equivalent to the claimed “permission.” Applicants note the present claim does not merely recite “pausing a transaction manager.” Instead, Applicants claim recites pausing a transaction manager in a specific manner “by withholding permission to change the state of one or more transactions managed by the transaction manager.” **Second**, Applicants claim recites “paus[ing] a transaction manager *in response to the pause request*”; the suspension of the thread cited by the Examiner is not performed in response to a request to suspend the thread. Since the cited art fails to teach this specific limitation of Applicants’ claim, the cited art cannot be said to anticipate Applicants’ claim.*

**Furthermore, the cited art fail to teach program instructions configured to receive a resume request, and resume the transaction manager in response to the resume request by granting permission to change the state of the one or more transactions managed by the transaction manager.** The Examiner cites the granting of a semaphore as illustrated in Figure 3. Granting a semaphore for a resource as taught by Ault is not the same as resuming the transaction manager in response to the resume request *by granting permission to change the state of the one or more transactions managed by the transaction manager*. Nor does granting a semaphore for a resource inherently include resum[ing] the transaction manager in response to the resume request *by granting permission to change the state of the one or more transactions managed by the transaction manager* as recited in Applicants’ claim. Anyone of ordinary skill in the art would recognize that a “resource” can be accessed without changing the state of a transaction. Since Ault fails to teach the aforesaid limitations of Applicants’ claim and since the limitations of Applicants’ claim are not inherently included in any of the teachings of Ault, Ault cannot be said to anticipate Applicants’ claim.

For at least the reasons presented above, the rejection of claim 39 is unsupported by the cited art and removal thereof is respectfully requested.

### **Section 103(a) Rejections:**

The Examiner rejected claims 2-9 and 12-19 under 35 U.S.C. § 103(a) as being unpatentable over Hagersten in view of Fowler et al. (U.S. Patent 4,502,116) (hereinafter “Fowler”), claim 26 as being unpatentable over Oeltjen in view of Hagersten, claim 28 as being unpatentable over Oeltjen in view of Armangau et al. (U.S. Patent 6,659,992) (hereinafter “Armangau”), claims 35, 44 and 53 as being unpatentable over Ault in view of Oliver (U.S. Patent 6,029,190) and further in view of Hagersten, claims 30-32, 34, 36, 48-50, 52 and 54 as being unpatentable over Ault in view of Oliver, claims 33, 38, 42, 51 and 56 as being unpatentable over Ault in view of Oliver and further in view of Hagersten, and claims 37, 46 and 55 as being unpatentable over Ault in view of Oliver and in further view of Armangau (U.S. Patent 6,549,941) (hereinafter “Armangau ‘941”). Applicants respectfully traverse these rejections for at least the following reasons.

### **Claim 30**

**The cited art fails to teach pausing a transaction manager in response to the pause request by withholding read locks on a stored transaction freeze object that identifies a respective atomic transaction.** The Examiner cites Figures 2 and 3 of Ault, none of which teach the specific limitations of claim 30. More specifically, Ault fails to teach anything about “read locks on a stored transaction freeze object that identifies a respective atomic transaction,” much less “pausing a transaction manager in response to the pause request by withholding read locks on a stored transaction freeze object that identifies a respective atomic transaction” as recited in Applicants claim. Instead, Ault teaches semaphores for “resources”; nowhere does Ault teach or suggest that such resources are stored transaction freeze objects that identify respective transactions. Nor does Ault teach withholding read locks on such objects to pause a transaction manager in

response to a pause request, as recited in Applicants' claim. For reasons similar to those presented above, Ault also fails to teach granting read locks on the stored transaction freeze object that identifies a respective atomic transaction. Furthermore, the teachings of Oliver (on which the Examiner relies to teach "read locks") fail to overcome the deficiencies of Ault. For example, Oliver describes "protected resources" (abstract); however, nowhere does Oliver describe such resources as stored transaction freeze objects identifying respective transactions, much less withholding or granting read locks for such objects. Accordingly, even were the teachings of the cited art combined, the resultant combination would not meet the specific limitations of Applicants' claim.

Furthermore, Applicants assert the Examiner has not provided a proper reasons as to why one of ordinary skill in the art would have been motivated to combine the teachings of the cited references. The Examiner asserts:

A skilled artisan would have been motivated to combine Ault and Oliver because it provides for read/write lock (sic) permits a plurality of reader threads to access protected data simultaneously, while only allowing a single writer thread to access to (sic) a protected data location as discussed in Oliver, Abstract.

The Examiner's reasoning is not supported by the actual evidence of record. In fact, a primary goal of Ault's semaphore scheme is to serialize access to a shared resource, not provide concurrent access as suggested by the Examiner. For example, Ault teaches "a semaphore is used to serialize access to a shared resource" (Ault, claim 1). Combining the teachings of Oliver with Ault as suggested by the Examiner would completely undermine a primary goal of the Ault reference. No one of ordinary skill in the art would combine the teachings of the cited art for the reason presented by the Examiner. Since the Examiner has not presented a proper reason as to why one of ordinary skill in the art would have been motivated to combine the references, the Examiner has failed to establish a *prima facie* case of obviousness for the claimed invention.

For at least the reasons presented above, the rejection of claim 30 is unsupported by the cited art and removal thereof is respectfully requested. Similar remarks apply to claim 48.

In regard to the § 102 and § 103 rejections, Applicants also assert that numerous ones of the dependent claims recite further distinctions over the cited art. However, since the rejection has been shown to be unsupported for the independent claims, a further discussion of the dependent claims is not necessary at this time. Applicants reserve the right to present additional arguments.



## CONCLUSION

Applicants submit the application is in condition for allowance, and notice to that effect is respectfully requested.

If any fees are due, the Commissioner is authorized to charge said fees to Meyertons, Hood, Kivlin, Kowert, & Goetzel, P.C. Deposit Account No. 501505/5681-15200/RCK.

Respectfully submitted,

/Robert C. Kowert/

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